

BROOKHAVEN NATIONAL LABORATORY SAFETY & HEALTH SERVICES DIVISION Safety Engineering Group	Number:	SE50700
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Safety Engineering Group Requirements Management

1.0 Purpose

This document describes the program the Safety and Health Services Division (SHSD) Safety Engineering Group (SEG) uses to track changes in legal requirements to ensure that Brookhaven National Laboratory (BNL) and SHSD SEG policies and documents remain in compliance with applicable requirements. The program is also intended to identify new requirements or changes at the proposal level before they are implemented, so that the Laboratory can plan for potential impacts. This procedure supplements the Laboratory's *Requirements Management System* described in the Standards Based Management System (SBMS) and is administered through the SHSD SEG.

2.0 Scope

The scope of this procedure applies to requirements (drivers) and best management proactive documents found in:

- Department of Energy (DOE) regulations, Orders, Notices, and Guides
- Occupational Safety and Health Administration (OSHA) worker health and safety regulations
- DOE mandated ANSI and ASME standards
- American National Standards Institute (ANSI) and American Society of Mechanical Engineers (ASME) standards incorporated by reference
- ANSI and ASME standards used by BNL as best management practices
- Other applicable drivers as appropriate

3.0 Responsibilities

The **SEG Manager** is responsible to:

- Assign SEG staff to conduct operations covered by this program.
- Ensure that SEG staff follows the policies of this program.

The **SEG Subject Matter Experts (SMEs)**, **SBMS Subject Area Point of Contact (POCs)** and **Program Administrators** are responsible to:

- Maintain up to date information regarding changes to regulations.
- Review proposed changes to regulations for potential impact to Laboratory operations.

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- Apprise the Laboratory management and Departments/Divisions of the impact of requirement changes.
- Complete the notifications and documentation as required by the Requirements Management Subject Area.
- Initiate changes in Subject Areas and SHSD SEG level procedures, as necessary.

4.0 References

4.1 BNL SBMS Requirements Management Subject Area

4.2 BNL SBMS Laboratory-Wide Procedures and Guidelines Subject Area

4.3 BNL SBMS Internal Controlled Documents Subject Area

5.0 Definitions

- 5.1 **External Requirements Document:** Any federal, state, or local law or regulation; DOE Directive; or other document that imposes requirements upon the Laboratory. An example is an OSHA regulation. Other documents include Executive Orders and the Brookhaven Science Associates (BSA) Prime Contract.
- 5.2 **Record of Decision (ROD):** The documentation that illustrates how an external requirement document is being implemented at the Laboratory (described in the SBMS requirements management process).
- 5.3 **Subject Matter Expert (SME):** For this procedure, the title SME refers to the roles of SBMS Subject Area Subject Matter Expert, SBMS Point of Contact (POC) and SEG Program Administrator. The SME is the individual assigned prime responsibility for maintaining expertise in one or more Safety Engineering topical areas.

6.0 Procedure

- 6.1 The SEG Program SME periodically (at least quarterly) reviews governmental agency websites and other resources for proposed or enacted changes to applicable drivers. At a minimum, the SEG accesses the appropriate sources for the drivers listed in Attachment 8.1. The SMEs can also keep apprised of pending legislation through workgroups, listservs, Federal and State registers and publications.

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- 6.2 The SME notifies the SBMS Office of any pending requirement changes that could potentially affect Laboratory operations. When a regulatory driver changes, the SME reviews the requirement for impact on BNL operations. The SME documents this review using the SBMS *External Requirements Document Record of Decision Form*. The SME maintain copies of appropriate documents in the SEG program files.

NOTE: The SBMS Office may notify the appropriate Management System Steward of the pending or proposed regulatory changes or new requirements that may impact Laboratory operations. The Management System Steward forwards the requirement to the SME for review.

- 6.3 The SEG's program SME initiates changes in Subject Areas, training material, or SHSD procedures, if needed, so that the Laboratory achieves compliance with the new or changed requirements.
- 6.4 The SEG distributes needed guidance information to affected Department or Division if requirement changes impact Laboratory operations. The SEG provides technical assistance to the line organization in the implementation of any new regulatory requirements and/or interpretation of the requirements as they pertain to the line.
- 6.5 If BNL needs to implement corrective action(s), the SME identifies the responsibility to the line organization(s) and enters the Corrective Action into the appropriate tracking system [i.e., BNL Action Tracking System (ATS) or SHSD Family ATS].

7.0 Qualification and Training

The SEG Manager will instruct all appropriate SEG staff in their role relative to this procedure and will assign person(s) with technical knowledge and computer experience to conduct the periodic requirement reviews. Qualification is documented using Attachment 8.2. Re-qualification is required on a three year basis.

8.0 Attachments

- 8.1 SHSD Safety Engineering Group- Regulatory Driver List
- 8.2 SHSD Safety Engineering Group- Qualification Form
- 8.3 Periodic Regulatory Driver Survey Form (sample)

The only official copy is on-line at the SHSD SE Group website.
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Document Development		
PREPARED BY: J. Ellerkamp Date 9/19/06	REVIEWED BY: S. Kane Date 10/3/06	APPROVED BY: S. Kane Date 10/3/06
ESH Coordinator/ Date: <i>none</i>	Work Coordinator/ Date: <i>none</i>	SHSD Manager / Date: <i>none</i>
Facility Support Rep. / Date: <i>none</i>	Environ. Compliance Rep. / Date: <i>none</i>	Safety & Health Rep / date: <i>none</i>
QA Representative / Date: M. Pizzulli 10/3/06	Training Coordinator / Date: <i>none</i>	<i>Other: none</i>
ISM Review - Hazard Categorization <input type="checkbox"/> High <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Low/Skill of the craft	Validation: <input type="checkbox"/> Formal Walkthrough <input checked="" type="checkbox"/> Desk Top Review <input type="checkbox"/> SME Review	Original Effective Date: 10/3/06 Document Control: SHSD Web Qualification: BTMS

Revision Log
Rev1: Purpose: Periodic review Description of change: Full review of document for current status. No significant changes required in Sections 1 to 8. Revised lists of Requirements in Attachment 8.1. Reviewer: R. Selvey 03/05/13 <div style="text-align: right;">Approved By: J. Ellerkamp 03/05/13</div>

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Attachment 8.1:

Safety Engineering Regulatory Drivers

Document	Requirement Title	R/B
10 CFR 830, Subpart A	Energy, Nuclear Safety Management, Quality Assurance Requirements	R
10 CFR 830.200 - Subpart B	Safety Basis Requirements	R
10 CFR 852	Guidelines for Physician Panel Determinations on Worker Requests for Assistance in Filing for State Workers Compensation Benefits	R
29 CFR 1904	Labor/Recording and Reporting Occupational Injuries and Illnesses	R
29 CFR 1910	Labor/Occupational Safety and Health Standards	R
29 CFR 1910 Subpart D	Walking-Working Surfaces	R
29 CFR 1910 Subpart F	Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms	R
29 CFR 1910 Subpart H	Hazardous Materials	R
29 CFR 1910 Subpart I	Personal Protective Equipment	R
29 CFR 1910 Subpart J	General Environmental Controls	R
29 CFR 1910.144	Safety color code for marking physical hazards.	R
29 CFR 1910.145	Specifications for accident prevention signs and tags.	R
29 CFR 1910.147	Control of hazardous energy (lockout/tagout).	R
29 CFR 1910 Subpart M	Compressed Gas and Compressed Air Equipment	R
29 CFR 1910 Subpart N	Materials Handling and Storage	R
29 CFR 1910 Subpart O	Machinery and Machine Guarding	R
29 CFR 1910 Subpart P	Hand and Portable Powered Tools and Other Hand-Held Equipment	R
29 CFR 1910 Subpart Q	Welding, Cutting, and Brazing	R
29 CFR 1910.269	Electric Power Generation, Transmission, and Distribution.	R
29 CFR 1910 Subpart S	Electrical	R
29 CFR 1910 Subpart T	Commercial Diving Operations	R
OSHA CPL 2-2.20B	Chapter 5, Back Disorders and Injuries	R
29 CFR 1926	Labor/Safety and Health Regulations for Construction	R
49 CFR 383	Transportation/Commercial Drivers License Standards; Requirements and Penalties	R
49 CFR 390	Transportation/Federal Motor Carrier Safety Regulations; General	R
49 CFR 391	Transportation/Qualifications of Drivers	R
49 CFR 392	Transportation/Driving of Commercial Motor Vehicles	R
49 CFR 393	Transportation/Parts and Accessories Necessary for Safe Operation	R
49 CFR 395	Transportation/Hours of Service of Drivers	R
49 CFR 396	Transportation/Inspection, Repair, and Maintenance	R
49 CFR 397	Transportation of Hazardous Materials; Driving and Parking Rules	R

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Document	Requirement Title	R/B
NYS UBC	New York State Uniform Fire Prevention and Building Code	R
Federal Aviation Regulation Part 135	Federal Aviation Regulation Part 135	R
Consolidated Laws of New York Book 64	Consolidated Laws of New York Book 64	R
O 151.1C	CRD - Comprehensive Emergency Management	R
M 231.1-1A	CRD - Environment, Safety & Health Reporting Manual	R
M 231.1-2	CRD - Occurrence Reporting & Processing of Operations Information	R
O 225.1A	CRD - Type A and B Accident Investigations	R
O 226.1	Implementation of Department of Energy Oversight Policy	R
O 252.1	CRD -Technical Standards Program	R
O 414.1C	Quality Assurance	R
O 420.1A	CRD - Facility Safety	R
O 420.2B	CRD - Safety of Accelerator Facilities	R
O 425.1C	CRD - Startup and Restart of Nuclear Facilities	R
O 433.1	Maintenance Management Program for DOE Nuclear Facilities	R
O 440.1A	CRD - Worker Protection Management for DOE Contractor Employees	R
Manual 440.1-1A,	DOE Explosives Safety Manual, Contractor Requirements Document (Attachment 2)	R
O 440.2B	CRD (Sections A&B) - Aviation Management and Safety	R
P 450.7	Environment, Safety and Health (ESH) Goals	R
O 460.1B	CRD - Packaging and Transportation Safety	R
M 460.2-1	CRD - Radioactive Material Transportation Practices Manual	R
DOE-STD-1030-96	Guide to Good Practices for Lockouts and Tagouts	R
DOE-STD-1090-01	Hoisting and Rigging	R
HDBK-1092-2004	DOE Electrical Safety Handbook	R
ANSI A 13.1	Scheme for the Identification of Piping Systems	R
ANSI Z 53.1	Safety Color Code for Marking Physical Hazards	R
ANSI Z 136.1	Safe Use of Lasers	R
ANSI Z 35.1	Specifications for Industrial Accident Preventions	R
ANSI Z 4.1-68	Requirements for Sanitation	R
ANSI/ASME B 30 Series	American National Standards Institute (ANSI)/American Society of Mechanical Engineers (ASME)/ASME/ANSI B30 Crane and Hoist Series of Standards	R
ANSI/ASME B 31	American National Standards Institute (ANSI)/American Society of Mechanical Engineers (ASME)/Piping Code	R
ANSI/ASME B 31.1	American National Standards Institute (ANSI)/American Society of Mechanical Engineers (ASME)/Power Piping	R

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ASME BPVS Code	American Society of Mechanical Engineers (ASME)/Boiler and Pressure Vessel Safety Code – Sections I - XII	R
CGA G-4 1987	Oxygen	R
CGA G-5 1991	Hydrogen	R
CGA P-1	Safe Handling of Compressed Gases in Containers	R
EO 12941	Seismic Safety of Existing Building	R
NFPA 50A	Gaseous Cylinders at Consumer Sites	R
NFPA 55	Storage, Use, and Handling of Compressed and Liquefied Gas in Portable Containers	R
NFPA 70	National Electrical Code	R
NFPA 70B	Electrical Equipment Maintenance	R
NFPA 70E	Electrical Safety Requirements for Employee Workplaces	R
NFPA 497M	Electrical Equipment in Hazardous Locations	R
OHSAS 18001	Occupational Health and Safety Management Specifications	R
OHSAS 18002	Occupational Health and Safety Management Systems Guidelines for the implementation of OHSAS 18001	R

B = Best Management Practice

R = Regulatory or Contract Requirement

SEG Requirements Management

Job Performance Measure (JPM) Completion Certificate

Candidate's Name	Life Number:
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Practical Skill Evaluation: Demonstration of Evaluation Methodology by Oral Exam

Criteria	Qualifying Performance Standard	Uns at.	Rec ov.	Sat isf.
Finding Requirement Changes	Demonstrates knowledge in how to periodically review appropriate sources: internet, governmental agency websites, and other resources (including personal contacts), workgroups, listservs, federal and state register publications.			
BNL Change Management Process	Demonstrates knowledge of the SBMS Office process for conducting requirement changes.			
BNL Level Documentation	Demonstrates knowledge in initiating and leading change in Subject Areas if needed.			
Site-wide Action	Demonstrates knowledge in initiating and leading general laboratory distribution of notifications of changes. Understands the process of getting entries entered into the BNL ATS or SHSD FATS.			
SE Group level policy and procedures	Demonstrates knowledge in making any necessary changes to SHSD SEG level programs or activities.			
Record keeping	Demonstrates knowledge in documenting corrective actions submitted to the SBMS Office using the <i>External Requirements Document Record of Decision Form</i> . Understands the need to send a copy of all documents generated as a result of this procedure to SBMS. Understands need to and where to maintain copies in the Program Administrator section of the Safety Engineering Group Leader's files.			

I accept the responsibility for performing this task as demonstrated within this JPM and the corresponding SOP.

Candidate Signature:	Date:
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I certify the candidate has satisfactorily performed each of the above listed steps and is capable of performing the task unsupervised.

Evaluator Signature:	Date:
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Date:	Review By:
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Document	Requirement Title	Source that was reviewed	Current Date that is in effect	Change Y/N
29 CFR 1910	Labor/Occupational Safety and Health Standards	<input type="checkbox"/> OSHA Web Page <input checked="" type="checkbox"/> CFR Search		
29 CFR 1926	Labor/Safety and Health Regulations for Construction	<input type="checkbox"/> OSHA Web Page		
5480.4 Change 3	Safety Engineering Safety and Health Standards	Sample		
M 231.1-1 Change 2	Environment, Safety and Health Reporting Manual			
O 440.1A	CRD - Worker Protection Management for DOE Contractor Employees	<input type="checkbox"/> DOE Web site		
ANSI		<input type="checkbox"/> ANSI Web site		

Record of actions needed: